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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,262	06/20/2003	Thomas W. Lanni	P 302109	7547

7590 06/23/2005

Eric S. Chen
PILLSBURY WINTHROP LLP
Suite 2800
725 South Figueroa
Los Angeles, CA 90017

EXAMINER

VU, BAO Q

ART UNIT PAPER NUMBER

2838

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/600,262

Applicant(s)

LANNI, THOMAS W.

Examiner

Bao Q. Vu

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 11, 18, 20, 23-25, 31 and 47-59 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 11, 18, 20, 23-25, 31, 47-59 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

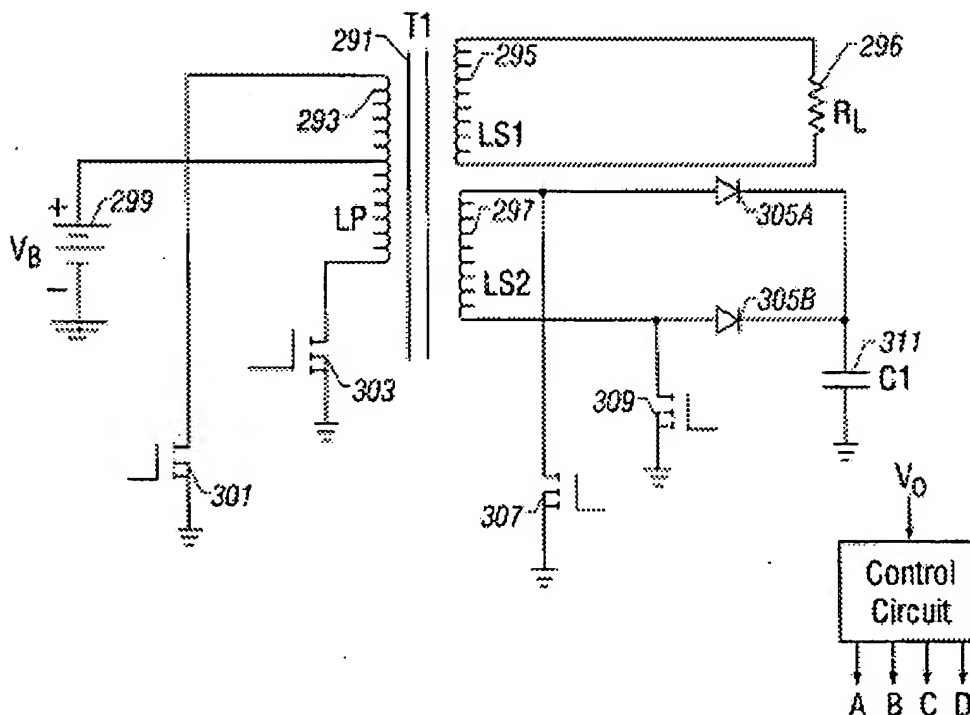
Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 18, 47 and 57 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Balogh (USP 5,946,202). Balogh discloses an input voltage system to receive AC power (see abstract), a transformer, T1, a boost circuit coupled to transformer wherein the secondary winding (LS1 and LS2) is configured as a boost inductor. The power converter is capable of receiving a DC input (299). See figure.



Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-5, 11, 20, 48-51, 57, and 59 are rejected 35 U.S.C. 103(a) as being unpatentable over Balogh (USP 5,946,202) in view of Macdonald et al. (USP 6,650,560). Balogh discloses the claimed invention except for the use of a buck regulator circuitry and current programming circuit. Macdonald discloses that it is known in the art to provide a plurality of input voltages (12 and 14, figure 1A), a transformer (T1, figure 2A), a buck regulator (28, figure 1A), cables and connectors (figure 1B), resistance is inherent in all connectors, voltage comparison circuit/ voltage programming circuit, (See figure 2B, Vsense, to comparator IC4A) current comparison circuit/current programming circuit (see figure 2B, I sense, to comparator IC4-B), this feedback is used to control the switch (Q4) and provide the driving signal. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to provide the use of a buck regulator circuitry and current programming circuit of Macdonald with the boost mode power conversion circuit of Balogh, in order to have a versatile circuit that is able to be externally programmable to cover a wide range of voltage or current combinations suitable for a wide variety of circuits and their load demands.

5. Claims 23-25, 31, 52-56, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balogh (USP 5,946,202) in view of Macdonald et al. and further in view of Riggio et al. (USP 6,504,423). Balogh and MacDonald disclose the claimed invention (see above paragraphs) except for having a DC input supplied to the center tap of the transformer. Riggio discloses that it is known in the art to provide a DC input supplied to the center tap of the transformer for purpose providing galvanic isolation and minimal voltage overshoot in the secondary and thus minimizing the filtering requirements. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to combine the DC input supplied to the center tap of the transformer of Riggio with the dual input power supply of MacDonald with the boost mode power conversion circuit of Balogh, in order to have a highly efficient converter for purpose providing galvanic isolation and minimal voltage overshoot in the secondary and thereby minimizing the filtering requirements.


Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bao Q. Vu whose telephone number is (571) 272-2088. The examiner can normally be reached on Monday-Fridays, 8:00AM- 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael S. Sherry can be reached on (571) 272-2084. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2838

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Bao Q. Vu
Primary Examiner
Art Unit 2838

June 20, 2005